In the claims:

Please amend the claims as follows:

1. (Currently Amended) ~~A~~ An air-permeable composite fabric comprising:

a first fabric layer~~; and~~

a second fabric ~~layers~~ layer; and

an intermediate, air-permeable vapor barrier disposed between and bonded to said first fabric layer and said second fabric layer:

said intermediate, air-permeable barrier layer being selected from the group consisting of: a foamed adhesive in the form of a discontinuous film, an adhesive in the form of a continuous film mechanically altered by one of crushing and stretching, and a membrane disposed between and adhered to said first fabric layer and said second fabric ~~layers~~ layer with an adhesive and mechanically altered by stretching, ~~; wherein~~

said intermediate, air-permeable vapor barrier layer having a level of air permeability to allow air flow between said first fabric layer and said second fabric layer, and

said intermediate, air-permeable vapor barrier layer having ~~has~~ a variable level of water vapor diffusion resistance which substantially decreases as air speed of moving air impinging on said fabric increases.

Claims 2-5. Cancelled.

6. (Currently Amended) The air-permeable composite fabric of ~~claim 4~~ claim 1, wherein said adhesive is selected from the group consisting of polyurethane, acrylics, polyamides, polyesters and combinations thereof.

7. (Currently Amended) The air-permeable composite fabric of claim 1, wherein at least one of said fabric layers is rendered hydrophilic.

8. (Currently Amended) The air-permeable composite fabric of claim 1, wherein at least one of said fabric layers has a raised surface.

Claims 9-22. Cancelled or withdrawn.

23. (Currently Amended) The ~~A~~ air-permeable composite fabric of claim 1, wherein said ~~comprising first and second fabric layers and an~~ intermediate, air-permeable vapor barrier ~~comprising~~ comprises an adhesive selected from the group consisting of: an adhesive in the form

of a mechanically altered continuous film and a foamed adhesive in the form of a discontinuous film~~; wherein said intermediate vapor barrier has a variable water vapor diffusion resistance which substantially decreases as air speed impinging of the fabric increases~~.

24. Cancelled.

~~24. The composite fabric of claim 23, wherein the adhesive is selected from the group consisting of polyurethane, acrylic, polyamides, polyesters and combinations thereof.~~

25. (Currently Amended) The air-permeable composite fabric of claim 23, wherein said vapor barrier is exclusively foamed adhesive in the form of a discontinuous film.

26. (Currently Amended) The ~~A~~ air-permeable composite fabric of claim 1, wherein said ~~comprising first and second fabric layers and~~ intermediate, air-permeable vapor barrier ~~comprising a~~ comprises the membrane ~~applied~~ disposed between said first fabric layer and said second barrier ~~layers~~ layer and adhered thereto with an adhesive and mechanically altered by stretching, ~~; wherein~~ said fabric ~~has~~ having undergone mechanical processing ~~such that said vapor barrier has a variable water vapor diffusion resistance which substantially decreases as air speed impinging on said fabric increases~~.

27. (Currently Amended) The air-permeable composite fabric of claim 1 or claim 26, wherein said membrane is made from a material selected from the group consisting of polyurethane, polyamide, polytetrafluoroethylene, polyester ~~or a combination~~ and combinations thereof.

28. (Currently Amended) The air-permeable composite fabric of claim 26, wherein said mechanical processing comprises controlled stretching.

29. (Currently Amended) The air-permeable composite fabric of claim 1, claim 23 or claim 26, wherein said adhesive is selected from the group consisting of polyurethane, acrylics, polyamides, polyesters and combinations thereof.

REMARKS

Claims 1, 6-8, 23, and 25-29 are pending in this application. All of the pending claims are currently amended. Claims 2, 3 and 24 have been cancelled in this response, without prejudice. Claims 4, 5 and 9-22 were previously cancelled or withdrawn. No new matter has been introduced.

I. Obviousness-Type Double Patenting Rejection

Claims 1-3, 6-8 and 23-29 stand rejected under the judicially created doctrine of obviousness-type double patenting over Lumb et al. U.S. 5,364,678; Lumb et al. U.S. 5,268,212 and Lumb et al. U.S. 5,204,156.[1] For the reasons set forth below, the rejection is respectfully traversed.

II. Anticipation and Obviousness Rejections

Claims 1-3, 6-8 and 23-29 have been rejected by the Examiner under 35 U.S.C. §102(b) as anticipated by, and under 35 U.S.C. §103(a) as obvious over, Lumb et al. '678. Again, for the reasons set forth below, Applicants respectfully traverse.

III. Applicants' Invention

Applicants' invention, as now more clearly claimed in the only remaining independent claim (claim 1), is an air-permeable composite fabric comprising a first fabric layer, a second fabric layer, and an intermediate, air-permeable vapor barrier disposed between and bonded to the first and second fabric layers. According to the invention, the intermediate, air-permeable barrier layer is selected from the group consisting of: a foamed adhesive in the form of a discontinuous film, an adhesive in the form of a continuous film mechanically altered by crushing or stretching, and a membrane that is disposed between and adhered to the first and second fabric layers with an adhesive, the membrane being mechanically altered by stretching. The intermediate, air-permeable vapor barrier layer has a level of air permeability that allows air flow between the first and second fabric layers. The intermediate, air-permeable vapor barrier

[1] The rejection specifically lists claims 1, 2, 7-9, 12, 16, 18, 20, 21, 24-29 and 31 for each cited patent. However, it appears that the lists are in error at least for the Lumb et al. '156 patent, which has only 19 claims. In any event, this error is rendered moot by the arguments set forth below to distinguish Applicants' present invention over the cited patents.

layer also has a variable level of water vapor diffusion resistance that substantially decreases as air speed of moving air impinging on the fabric increases.

The present invention provides the advantage of transporting additional levels moisture across the fabric because the composite fabric has a level of air permeability, and it also has a level of vapor diffusion resistance that decreases as the air speed of air impinging on the fabric increases. In some embodiments, the intermediate, air-permeable vapor barrier is a continuous film of adhesive or a membrane to which the level of air permeability is imparted by mechanically altering the intermediate vapor barrier, e.g. by crushing the fabric between pressure rollers or by stretching the fabric, to cause a change in or create airflow paths that allow air to travel through the composite. In another embodiment, airflow paths are created through the intermediate, air-permeable vapor barrier by employing a discontinuous film, e.g. of foamed adhesive, positioned to control levels of air permeability. Since the evaporation pressure resistance drops far more rapidly than thermal resistance for the same amount of change in air permeability, the volume of moisture transported increases with air speed, thereby improving a wearer's comfort without significant adverse effect on warmth of the fabric. In the present application, particular attention is directed, e.g., to page 6, lines 3-19 and Figs. 3A, 3B and 7 (providing comparisons with prior art samples).

IV. Argument

None of the prior art references cited by the Examiner teaches, or fairly suggests, Applicants' invention, as now more clearly claimed. In particular, none of the cited references, Lumb et al. '678; Lumb et al. '212 and Lumb et al. '156, all by the instant inventors, Douglas Lumb and Moshe Rock, teaches or suggests a composite fabric that is permeable to moving air, as described and claimed by Applicants in their instant application.

Rather, in marked contrast to Applicants' invention, each of Lumb et al. '678; Lumb et al. '212 and Lumb et al. '156 describes a composite fabric that is windproof and impervious or essentially impervious to moving air. For example, the fabric of Lumb et al. '678 transports moisture through the fabric by an absorption-diffusion-desorption process or through micro-pores that transport moisture vapor to the outer fabric layer (see Lumb et al. '678 at col. 6, line 65 to col. 7, line 6). Lumb et al. '678 does not disclose, nor does it fairly suggest, use of an air-

permeable barrier layer that allows moving air to pass between the outer and inner fabric layers for enhanced dissipation of moisture. Additionally, Lumb et al. '678 provides:

> While breathable, composite fabrics 12, 40 and 50 are essentially impervious to moving air. Therefore, whether a wearer is exposed to windy conditions or creates a windy condition by moving rapidly through still air, the wearer is insulated from the effects of wind chill. (col. 7, lines 38-43, *emphasis provided*)

Similarly, in Lumb et al. '212:

> Composite material constructed in accordance with the invention is formed with a first layer of outer fabric material, a windproof and water resistant barrier layer, thereon and a second layer of inner fabric material applied to the barrier." (col. 3, lines 22-26, *emphasis provided*)

and

> While breathable, composite fabric is impervious to moving air." (col. 5, lines 34-35, *emphasis provided*)

Still again in Lumb et al. '156:

> Composite material constructed in accordance with the invention is formed with a first layer of outer fabric material, a windproof and water resistant barrier layer, thereon and a second layer of inner fabric material applied to the barrier." (col. 3, lines 22-26, *emphasis provided*)

and

> While breathable, composite fabric is impervious to moving air." (col. 5, lines 34-35, *emphasis provided*)

We submit, therefore, that the claims of the present invention, as now amended to more clearly recite Applicants' invention of an air-permeable composite fabric, are fully distinguished, and therefore patentable, over the cited prior art. Again, early favorable action is solicited in this regard.